APRIL/MAY 2023

CBC31 — ANALYTICAL BIOCHEMISTRY

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Define term Ph.

2. Outline any two application of Ultracenterifugation.

3. Recall the principle of chromatography.

4. Show the locating reagent used in identification of sugars and aminoacids in paper chromatography.

5. List any two absorption spectroscopy.

6. Explain the role of monochrmator.

7. Define Electrophoretic mobility.

8. Compare PAGE and SDS-PAGE.

9. What are radioisotopes? Give examples.

10. Explain "Becquerel".

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Identify the Experiment to separate the organelles.

Or

(b) Examine the following terms: pH, pOH, Molarity, Molality and Normality.

12. (a) Organize the principle and applications TLC.

Or

(b) Examine the types of paper chromatography.

13. (a) Construct the instrumentation and working of Flame emission spectroscopy.

Or

(b) Distinguish Absorption and emission spectra.

14. (a) Identify the principle and applications of agarose gel electrophoresis.

Or

(b) List the factors affecting electrophoresis and its applications.

15. (a) How are radioisotopes made used in the elucidation of metabolic pathways?

Or

(b) Distinguish between alpha beta and gamma rays.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain any two centrifugation techniques.

17. Evaluate the principle, construction and working of GPC.

18. Explain the instrumentation and applications of UV spectrophotometer

19. Discuss the principle, technique and applications of SDS-PAGE

20. Elaborate the principle and working procedure of GM counter with its application.